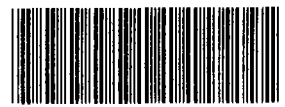




**Rocky Mountain
Remediation Services, L.L.C.**
... protecting the environment

Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, Colorado 80402-0464
Phone: (303) 966-7000



000066612

April 23, 1997

K. A. Dorr
Kaiser-Hill
Project Management
Building T130F
Rocky Flats Environmental Technology Site

**TRANSMITTAL OF THE DRAFT PROPOSED ACTION MEMORANDUM (PAM)
FOR THE 980 CLUSTER DECOMMISSIONING PROJECT, REV. 0 - WJM-019-97**

PURPOSE

The purpose of this memorandum is to submit the draft Proposed Action Memorandum for the decommissioning of the 980 Cluster (Buildings 965, 968 and 980).

DISCUSSION

Enclosed is a copy of the draft PAM for the 980 Cluster decommissioning project and a Review Comment Sheet. A meeting will be held to discuss comments and determine resolution on May 1, 1997, at 2:00 pm in the T130F conference room. As discussed earlier, a copy of the 980 Cluster PAM will be delivered to the State and Environmental Protection (EPA) representative.

RESPONSE REQUIREMENTS

Please provide five copies of the draft PAM to W. Fitch, DOE/RFFO and invite him to attend the meeting on May 1, 1997, to review any comments on the PAM. If document reviews are completed prior to May 1, 1997, please fax comments to X5215. If you have any questions, please contact Mark Hickman on Extension 7145.

W. J. McAndrew
W. J. McAndrew, Acting Manager, Project Management
Engineering/Construction/Decommissioning

MEH:dlu

Enclosures:
As Stated (2)



ADMIN RECORD
B980-A-00005

| | | |
|--------------------------|-----|-----|
| CORRESP. CONTROL | | |
| LTR. NO. | | |
| K-H Corres. # | | |
| Originator Ltr Log # | | |
| WJM-019-97 | | |
| 97 - RF - | | |
| DIST. | LTR | ENC |
| BARTHEL, J.M. | | |
| BENSON, C.A. | | |
| CARMAN, C.H. | | |
| DAWSON, D. | | |
| EDWARDS, J.D. | | |
| FINDLEY, M.E. | | |
| GUTHRIE, C.L. | X | X |
| FITZ, R.C. | | |
| GUINN, L.A. | | |
| HUGHES, F.P. | | |
| MCANALLY, J.L. | | |
| POWER, A.P. | | |
| REED, A.B. | | |
| TYSON, A.M. | | |
| WAGNER, M.J. | | |
| WHEELER, M. | | |
| HICKMAN, M.E. | X | X |
| MCANDREW, W.J. | X | X |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Admin Record | X | X |
| RMRS RECORDS | X | X |
| TRAFFIC | | |
| PATS/T130G | | |
| CLASSIFICATION: | | |
| UCNI | | |
| UNCLASSIFIED | | |
| CONFIDENTIAL | | |
| SECRET | | |
| AUTHORIZED CLASSIFIER | | |
| SIGNATURE: | | |
| | | |
| Date: | | |
| IN REPLY TO RF CC NO.: | | |
| | | |
| ACTION ITEM STATUS: | | |
| q PARTIAL/OPEN | | |
| q CLOSED | | |
| LTR APPROVALS: | | |
| | | |
| | | |
| ORIG. & TYPIST INITIALS: | | |
| MEH:dlu | | |
| RF-46469(Rev.1/97) | | |



Rocky Mountain
Remediation Services, L.L.C.
... protecting the environment

Rocky Flats Environmental Technology Site
P.O. Box 464
Golden, Colorado 80402-0464
Phone: (303) 966-7000



000066612

COPY

April 23, 1997

K. A. Dorr
Kaiser-Hill
Project Management
Building T130F
Rocky Flats Environmental Technology Site

TRANSMITTAL OF THE DRAFT PROPOSED ACTION MEMORANDUM (PAM)
FOR THE 980 CLUSTER DECOMMISSIONING PROJECT, REV. 0 - WJM-019-97

PURPOSE

The purpose of this memorandum is to submit the draft Proposed Action Memorandum for the decommissioning of the 980 Cluster (Buildings 965, 968 and 980).

DISCUSSION

Enclosed is a copy of the draft PAM for the 980 Cluster decommissioning project and a Review Comment Sheet. A meeting will be held to discuss comments and determine resolution on May 1, 1997, at 2:00 pm in the T130F conference room. As discussed earlier, a copy of the 980 Cluster PAM will be delivered to the State and Environmental Protection (EPA) representative.

RESPONSE REQUIREMENTS

Please provide five copies of the draft PAM to W. Fitch, DOE/RFFO and invite him to attend the meeting on May 1, 1997, to review any comments on the PAM. If document reviews are completed prior to May 1, 1997, please fax comments to X5215. If you have any questions, please contact Mark Hickman on Extension 7145.

W. J. McAndrew
W. J. McAndrew, Acting Manager, Project Management
Engineering/Construction/Decommissioning

MEH:dlu

Enclosures:
As Stated (2)



REVIEWED FOR CLASSIFICATION/UCNI
By W. J. Roberts (U/NU)
Date 6/29/98 20 pp.

AR:IA-B980-A-00005

| CORRESP. CONTROL | | |
|--------------------------|-----|-----|
| LTR. NO. | | |
| K-H Corres. # | | |
| Originator Ltr Log # | | |
| WJM-019-97 | | |
| 97 - RF - | | |
| DIST. | LTR | ENC |
| BARTHEL, J.M. | | |
| BENSON, C.A. | | |
| CARMEAN, C.H. | | |
| DAWSON, D. | | |
| EDWARDS, J.D. | | |
| FINDLEY, M.E. | | |
| GUTHRIE, C.L. | X | X |
| FITZ, R.C. | | |
| GUINN, L.A. | | |
| HUGHES, F.P. | | |
| McANALLY, J.L. | | |
| POWER, A.P. | | |
| REED, A.B. | | |
| TYSON, A.M. | | |
| WAGNER, M.J. | | |
| WHEELER, M. | | |
| HICKMAN, M.E. | X | X |
| McANDREW, W.J. | X | X |
| Admin Record | X | X |
| RMRS RECORDS | X | X |
| TRAFFIC | | |
| PATS/T130G | | |
| CLASSIFICATION: | | |
| UCNI | | |
| UNCLASSIFIED | | |
| CONFIDENTIAL | | |
| SECRET | | |
| AUTHORIZED CLASSIFIER | | |
| SIGNATURE: | | |
| Date: | | |
| IN REPLY TO RF CC NO.: | | |
| ACTION ITEM STATUS: | | |
| q PARTIAL/OPEN | | |
| q CLOSED | | |
| LTR APPROVALS: | | |
| ORIG. & TYPIST INITIALS: | | |
| MEH:dlu | | |
| RF-46469 (Rev. 1/97) | | |

APPENDIX 7

Page 1 of 2

REVIEW COMMENT SHEET

REVIEW COMMENT SHEET

Time Spent on Review: _____ hrs.

Return to:

If questions on content, please call the SME:

| | | | | | | | | | | | | | |
|---|---------------------------|------------|--|------------|--|--------------------------|--|-------------|--|------------|--|--------------------------------------|--|
| FAX _____ | | Name _____ | | Ext. _____ | | Location _____ | | Name _____ | | Ext. _____ | | Page 1 of _____ | |
| Please review the attached procedure: _____ Title _____ | | | | | | | | | | | | | |
| Comment Due Date: _____ | | | | | | | | | | | | | |
| <input type="checkbox"/> Internal Review <input type="checkbox"/> Parallel Review <input type="checkbox"/> Verification <input type="checkbox"/> Validation <input type="checkbox"/> Revalidation | | | | | | | | | | | | | |
| General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance. | | | | | | | | | | | | | |
| TYPE G or M | SECTION PAGE OR LINE # | COMMENT | | | | | | DISPOSITION | | | | Disposition Accepted INIT/DATE | |
| | | | | | | | | | | | | | |
| POC/Reviewer: (Comments not signed by POC/Reviewer will be considered unofficial and not subject to resolution) <input type="checkbox"/> No Comments <input type="checkbox"/> This procedure revision has no impact or relevance to our discipline or organization and we waive need to concur. | | | | | | | | | | | | | |
| Name _____ | | | | | | Signature _____ | | | | | | Date _____ | |
| Ext./Pager/Fax _____ | | | | | | Bldg./Organization _____ | | | | | | Date _____ | |

**PROPOSED ACTION MEMORANDUM
FOR THE DECOMMISSIONING
OF BUILDINGS 965, 968, AND 980**

April 23, 1997

Revision 0

Document Control Number RF/RMRS-97-00XX

REVIEWED FOR CLASSIFICATION
By: YAL
Date: 4/24/97

**PROPOSED ACTION MEMORANDUM
FOR THE DECOMMISSIONING OF
BUILDING 965, 968, AND 980**

TABLE OF CONTENTS

| | | |
|-------|---|----|
| 1.0 | PURPOSE..... | 1 |
| 2.0 | PROJECT DESCRIPTION | 1 |
| 2.1 | Background | 1 |
| 2.2 | Historical Data | 2 |
| 2.3 | Building Hazard Summary | 2 |
| 2.3.1 | General | 2 |
| 2.3.2 | Radiological..... | 3 |
| 2.3.3 | RCRA | 3 |
| 2.3.4 | Asbestos | 3 |
| 3.0 | PROJECT MANAGEMENT OVERVIEW | 4 |
| 3.1 | Decommissioning Objectives | 4 |
| 3.2 | Decommissioning Process..... | 5 |
| 3.2.1 | Decommissioning Planning and Engineering Phase..... | 5 |
| 3.2.2 | Decommissioning Operations Phase | 6 |
| 3.3 | Scope of Work | 7 |
| 3.4 | Documentation | 7 |
| 3.4.1 | Quality Program | 8 |
| 3.4.2 | Worker Health and Safety Plan..... | 10 |
| 3.4.3 | Characterization Plan..... | 10 |
| 3.4.4 | Waste Management..... | 11 |
| 4.0 | ENVIRONMENTAL IMPACT | 11 |
| 5.0 | APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS | 11 |
| 5.1 | Chemical Specific Requirements and Considerations | 12 |
| 5.1.1 | NESHAPs..... | 12 |
| 5.1.2 | Radiological Specifications..... | 12 |
| 5.2 | Action Specific Requirements and Considerations..... | 12 |
| 5.2.1 | RCRA | 13 |
| 5.2.2 | Low Level Waste | 13 |
| 5.2.3 | OSHA | 13 |
| 5.3 | Location Specific Requirements and Considerations | 13 |
| 5.4 | To Be Considered (TBC) | 13 |
| 5.4.1 | TBC Guidance..... | 13 |
| 6.0 | IMPLEMENTATION SCHEDULE..... | 14 |
| 7.0 | REFERENCES..... | 14 |

ACRONYMS

| | |
|--------|--|
| ARARs | Applicable or Relevant and Appropriate Requirements |
| CCR | Colorado Code of Regulations |
| CERCLA | Comprehensive Environmental Response and Liability Act |
| CFR | Code of Federal Regulations |
| DOE | Department of Energy |
| DPP | Decommissioning Program Plan |
| EPA | Environmental Protection Agency |
| HP | Health Physics |
| IH | Industrial Hygiene |
| IHSS | Individual Hazardous Substance Site |
| IWCP | Industrial Work Control Plan |
| LDRs | Land Disposal Restrictions |
| MOU | Memorandum of Understanding |
| mg/L | Milligrams Per Liter |
| mg/Kg | Milligrams Per Kilogram |
| NEPA | National Environmental Protection Act |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| OSHA | Occupational Safety and Health Administration |
| PM | Project Manager |
| PA | Protected Area |
| PAM | Proposed Action Memorandum |
| pCi/g | Pico Curies Per Gram |
| PPE | Personal Protective Equipment |
| QA/QC | Quality Assurance/Quality Control |
| RCRA | Resource Conservation and Recovery Act |
| RFCA | Rocky Flats Cleanup Agreement |
| RFETS | Rocky Flats Environmental Technology Site |
| RMRS | Rocky Mountain Remediation Services |
| SAP | Sampling and Analysis Plan |
| SAA | Satellite Accumulation Area |
| TBC | To-Be-Considered |
| TQM | Total Quality Management |

1.0 PURPOSE

This Proposed Action Memorandum (PAM) outlines the approach that will be taken and the applicable requirements that will be utilized in the decommissioning of Buildings 965, 968, and 980 as part of the site cleanup of the Rocky Flats Environmental Technology Site (RFETS). These actions will be conducted as non-time critical removal actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), an interim action, and is in keeping with the site's 10 year plan.

The removal is being conducted in accordance with the Rocky Flats Cleanup Agreement (RFCA [DOE, 1996]) and the applicable relevant and appropriate requirements (ARARs) of the Federal, State, and local regulations. The management structure and scheme of this action is identified in the Decommissioning Program Plan (DPP), currently in draft. The regulatory requirements are implemented through RFETS policies and procedures. This action will be conducted in a manner which is protective of site workers, the public, and the environment.

2.0 PROJECT DESCRIPTION

This Decommissioning project (3 buildings) is part of the site cleanup plan and will be conducted as a Proposed Action Memorandum (PAM) CERCLA removal action. Decommissioning will be completed utilizing the Draft Decommissioning Program Plan (DPP) and this PAM which will direct the removal of these butler buildings to their base slab. Actions covered by this regulatory document include disconnecting utilities, decontamination of any radiologically contaminated areas, and demolition of the structure. Completion of project documents, administrative record, environmental and waste management actions, and DOE project management requirements are also included.

Transfer of stored parts and equipment from Buildings 965, 968, and 980 to Property Utilization and Disposal (PU&D) is not part of this decommissioning effort.

2.1 Background

These three metal covered buildings are located near the center of RFETS within the Protected Area (PA) (see figure 2-1). These buildings currently have no mission or scope. They were utilized as warehouses and housed construction equipment, building material, and supplies for contractors on-site.

Building 965 is approximately 1,000 square feet in area and housed a maintenance shop which provided various carpentry services, as well as, equipment repair and storage.

Building 968 is approximately 11,000 square feet in area and was used for subcontractor staging and storage.

DRAFT

Building 980 is approximately 13,000 square feet in area and was used for J.A. Jones construction storage. About 1/5 of the area is presently a radiological buffer area for the storage of a radiologically contaminated pumping truck.

2.2 Historical Data

Building 965 functioned as a maintenance shop until 1996 and was utilized for various carpentry services and equipment repairs. Wood product, such as scaffolding, shoring, and deck support, were brought into 965 by vendors from PA locations for repair. In addition, equipment, such as pumps and electric motors, were brought in for repair. Tools, including drills, routers, and saws were utilized in this space. No hazardous waste streams originated from this facility.

Building 968 was used by the construction subcontractor for storage, warehousing, and support shops for their activities at the plant. The building housed work and staging areas for projects relating to painting, warehousing, and motorpooling. Most waste generated was during these processes and while conducting building maintenance. Painting waste were segregated into landfill waste (e.g., paint brushes, rollers, empty paint cans, drop clothes, and PPE), while RCRA waste streams were managed by Satellite Accumulation Areas (SAA) (e.g., paint sludge with thinner/solvents, flammable waste and paint equipment). Motorpool waste generated included: combustibles, broken parts, used absorbent, and empty containers. This shop performed maximum minimization. Used oil and filters were recycled, solvents used were non-hazardous, batteries were reclaimed, and aerosols cans were punctured then the metal was recycled. Fluorescent tubes were crushed and handled properly by SAA.

Building 980 was previously used by J.A. Jones Construction Company for storage, warehousing, and as a support shop for their activities. Operations within the 980 building included: sheet metal work, painting, iron work, asbestos abatement, carpentry, millwrighting, and motorpooling. Painting waste was segregated into landfill waste (e.g., paint brushes, rollers, empty paint cans, drop clothes, and PPE). RCRA waste streams were managed by Satellite Accumulation Areas (SAA) (e.g., paint sludge with thinner/solvents, flammable waste and paint equipment). Motorpool waste generated combustibles, broken parts, used absorbent, and empty containers. Fluorescent tubes were crushed and handled properly by SAA. All excess chemicals present will be removed from this building prior to the start of decommissioning.

2.3 Buildings Hazard Summary

2.3.1 General

All equipment and building materials will be surveyed and characterized for the presence of hazardous or radioactive contaminants, including those regulated by the TSCA, and will be handled, stored, and disposed of accordingly.

2.3.2 Radiological

Based on the process knowledge of buildings 965, 968, and 980, and their general use as warehouses, minimal expectation exists for radiological contamination to be present in the buildings themselves with the exception of the following:

- A radiological buffer area and a contamination area presently exist in building 980. A slightly contaminated pumping truck was decontaminated in the area and is currently present. No radiological contamination is expected in the building itself.

• A potential for radiological contamination exists on the metal surfaces on the outside of buildings 965, 968, and 980 as a result of spray, during high wind conditions, from the radiologically contaminated evaporation ponds to the north and west of the buildings.

In accordance with the decommissioning guideline in Draft NRC NUREG/CR-5849, "Manual For Conducting Radiological Surveys In Support of License Termination", portions of these areas warrant consideration for classification as Affected. Characterization surveys will be used to determine to what extent these areas should be classified as affected. Affected areas will require the performance of extensive radiological surveys. A comprehensive, but less extensive survey will be performed on all other building surfaces that are considered Unaffected.

Affected areas will be divided into one square meter grids, and a minimum of one fixed and one removable contamination measurement for beta/gamma and alpha will be obtained for each grid location. In addition, a 100% scan for beta/gamma and alpha will be performed on all accessible surface areas.

Unaffected areas will be surveyed at a minimum frequency of one fixed and one removable contamination measurement for beta/gamma and alpha for each 9 square meters of the accessible surface areas. In addition, 10% of all accessible surface areas will be scanned for beta/gamma and alpha contamination.

2.3.3 RCRA

RCRA universal waste streams such as light ballasts and fluorescent lights will be collected, segregated, and disposed of in accordance with the Hazardous Waste Requirements Manual.

2.3.4 Asbestos

Asbestos hazards in these buildings are minimal, as is revealed in the building breakdown below:

- Building 965 - No asbestos has been discovered in this building

- Building 968 - 21 mudded fittings, and 35 linear feet of pipe insulation in the rest room area contains asbestos and will be handled accordingly
- Building 980 - 5 mudded fittings, and 20 linear feet of pipe insulation in the rest room area contains asbestos and will be handled accordingly

3.0 PROJECT MANAGEMENT OVERVIEW

Program management and control will function under an integrated scope, schedule, and cost control system that identifies responsibilities and interfaces to ensure all project personnel are fully familiar with the system. The project organization, under the direction of a Project Manager (PM), is an integrated team of the best possible individuals for each of the key positions. This approach to quality staffing will be used throughout the Decommissioning Program.

The management approach of the Decommissioning Program will provide for real-time schedule and cost controls. These controls will provide the tools necessary to inform the PM of project status, permit early detection of problems and analyze trends, and devise corrective actions. The real-time controls identify changes as requirements dictate - not when the end of the milestone/project is reached, and costs have already exceeded the target. This approach provides the tools to meet the Department of Energy's (DOE) philosophy, which puts worker safety first, constructs outcome-oriented projects, provides management and control of finances, focuses technology, and changes the perspective of personnel from institutional to entrepreneurial.

3.1 Decommissioning Objectives

The objective of all decommissioning actions is to safely dismantle all systems, and remove material internal to the buildings, decontaminate all hazards areas within the structures, and dismantle the external framework. This will be completed through the integration of DOE guidances and Orders, Site infrastructure pre-job planning and briefing, training on general safety and job specific safety, and documenting processes that have been improved with previous projects lessons learned.

The Decommissioning Program is comprised of the resources to budget, plan, engineer, execute and control the decommissioning of the entire Rocky Flats Environmental Technology Site (RFETS), consisting of several major facilities. Each major building, group of buildings, or grouping of similar building areas may comprise a decommissioning project.

The decommissioning projects assigned within the Decommissioning Program each have many common activities which will be managed at the Program level. These activities consist of planning, engineering, permitting, characterization, waste disposal, site preparation and final release. In this manner these activities can be accomplished beginning immediately with a

level of effort staffing. The deliverables of these activities are prepared in advance of individual project needs. This will allow the operations activity schedule of the Decommissioning Program to be compressed, which will have a major effect on the surveillance and maintenance costs due to a reduced overall schedule.

Activities which include dismantlement, decontamination, demolition, and site specific preparatory activities will be managed at the Project level. The PM will be responsible for the integration of project activities for individual projects and will have full responsibility for directing all resources necessary to complete the project.

3.2 Decommissioning Process

The Decommissioning Process is described in general terms as decommissioning planning and engineering, and decommissioning operations. This process documents the minimum elements that will be utilized by the Decommissioning Program to document their actions.

3.2.1 Decommissioning Planning and Engineering Phase

The decommissioning planning phase begins with the selection/transfer of buildings/units to the Decommissioning Program. The transfer of buildings/units from the building management to the decommissioning program begins with the review of the building documentation and characterization data and a walk-down of the buildings by decommissioning personnel. Once transfer has occurred, the decommissioning program will develop project specific documents in accordance with the Draft Decommissioning Program Plan (DPP). A project specific plan will have been developed by the Decommissioning Program staff for preliminary budgeting purposes which reflects the Decommissioning section of Accelerated Site Action Project. The Decommissioning Program Manager will develop this plan, to the detail necessary, to apply the Decommissioning Cost and Schedule Control System. This plan is based on the information gathered, building process knowledge, and decommissioning knowledge. Depending upon the availability of funds, the decommissioning planning phase will primarily be conducted prior to the turnover of the buildings to the Decommissioning Program.

The Decommissioning Planning and Engineering Phase begins with the commencement of characterization of the facility. Characterization provides knowledge of the facility and of the waste to be generated. To meet that requirement, a characterization plan will be developed and once produced, will be available for review by the responsible oversight agency. The characterization plan describes the hazard, quantity, type, location, and method to be utilized during sampling. It further describes the Quality Assurance (QA) policy, project organization, functional activities, and the data quality objectives and measures necessary to achieve adequate data for the planning of the decommissioning action.

The Decommissioning Program will commence development of a Health and Safety Document, engineering support documents and a memorandum of understanding (MOU) with Environmental Restoration (ER), if necessary. RCRA Permits are not required under

Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA) actions, but the information should be identified in the administrative record. The Health and Safety documents will address personnel risk assessment, and the decommissioning safety

analysis. The personnel risk assessment is primarily for the protection of the workers and will identify any safety issues such as personnel protection equipment, and confined space entry. Personnel risk analysis will address the potential for contamination of personnel and hazards associated with chemicals in the area. Engineering support will assist in identifying methodologies and equipment to be utilized during the decommissioning process. This step is to minimize impacts and provide a well organized approach to decommissioning. The MOU with ER is created if the scope of the decommissioning does not remove all the chemical or radiological hazards associated with the removal action. Examples of items to be included in the MOU are spills outside the building prior to the decommissioning action, underground or embedded piping, and sub-basement/soil remediation.

Waste management activities and waste minimization requirements will be developed following characterization and incorporated in the Integrated Work Control Program (IWCP). An approximate volume for each waste type will be developed and provided to the Waste Management Organization for its planning purposes. Waste minimization techniques will be explored for reduction of the volumes of waste to be generated by the decommissioning actions. On-site treatment will also be considered.

Once the requirements and actions are identified, the acquisition of the work force will commence. Prior to starting the work, a review of procedures and decommissioning techniques will be completed. Personnel involved in the actions will have their training and qualifications verified. All work on decommissioning actions will be completed to an approved IWCP. During the decommissioning engineering phase, surveillance and maintenance and any required RCRA unit inspections will continue.

3.2.2 Decommissioning Operations Phase

The Decommissioning Operations Phase will be conducted in accordance with all requirements identified in the plans. The PM may vary the order of the completion of the action but only after a decision has been reached with the health and safety manager. As the actions are completed and verified, a concurrent phase-out of building surveillance and maintenance and inspections will occur. If RCRA closure is applicable, and is not completed during the decommissioning action, inspections will be continued.

A completion report will be generated identifying work completed, method of validation, sampling date (if any), status of any areas of risks, any new areas of concern, and the status of the unit at the end of the decommissioning action. This document closes the decommissioning administrative record.

3.3 Scope of Work

In general, the decommissioning scope of work encompasses all facilities at RFETS and are fully described by the ASAP work breakdown structure. Full deactivation of a building does not have to occur prior to initiation of decommissioning activities. Decommissioning can begin in sections of a building that can be isolated from areas where deactivation has not been completed.

The scope of the Decommissioning Program includes several facilities that will undergo decommissioning as individual projects and also includes process equipment (such as process and storage tanks), ventilation systems, and ancillary filter houses and effluent tanks, and security devices such as fencing and guard posts. In order to derive the greatest benefit from the decommissioning funds, decommissioning of individual buildings or rooms will be considered and performed when cost effective and otherwise feasible. This strategy is especially effective when reducing the contamination level of a contaminated building or room which has no future use and offers a large savings in surveillance and maintenance and health protection costs.

The project implementation steps include, but are not limited to the following:

- decontaminating equipment and structures to allow their reuse and/or demolition and removal
- ensuring worker safety and health protection
- managing primary and secondary wastes to comply with regulatory requirements
- controlling residual hazards to ensure protection of the public and the environment.

Activities performed include the following:

- Site/facility assessments
- Regulatory and public involvement
- Maintenance actions
- Project scoping and engineering plans and procedures
- Waste Management
- Decommissioning operations
- Close-out/verification

The scheduling of these activities must reflect consideration of risks to human health and the environment, facility planning, and impacts to regulatory commitments. Approved project baseline schedules and costs will be used as performance measures for these activities.

3.4 Documentation

A list of the various plans which will guide the implementation of each decommissioning project and which are subordinate to the DPP is illustrated below. These plans are provided

for information purposes and do not require regulatory approval. The decommissioning process, which is documented in the DPP, supports the decommissioning action decision. These documents will be placed in an administrative record. Informational copies of the administrative record will be kept at the Rocky Flats public reading rooms located off-site

TABLE 2-1

**PLANS SUBORDINATE TO DECOMMISSIONING
PROGRAM PLAN AND THE PAM**

| PLAN # | TITLE |
|---------------|--------------------------------|
| RMRS 001 | Mobilization Plan |
| RMRS 002 | Demobilization Plan |
| RMRS 003 | Administration Plan |
| RMRS 004 | Training Plan |
| RMRS 005 | Project Staffing Plan |
| RMRS 006 | Cost and Schedule Plan |
| RMRS 007 | Health & Safety Plan |
| RMRS 008 | Environmental Plan |
| RMRS 009 | Quality Assurance Program Plan |
| RMRS 010 | Records Management Plan |
| RMRS 011 | Characterization Plan |
| RMRS 012 | Waste Management Plan |
| RMRS 013 | Data Quality Management Plan |

3.4.1 Quality Program

A commitment to a quality program and a continuous improvement philosophy are applied from project start through completion. This commitment to quality is instilled at all project levels, and adherence to this commitment is instrumental in the project's success.

Quality engineers are involved at the initial planning stage of a project. Activities requiring QA/QC participation in the planning stage include:

- Preparation of the QA program plan and QA/QC procedures
- Assistance in developing the PAMs and Decommissioning Project Plan

DRAFT

- Assurance that comment resolutions are complete
- Assurance that the project has a uniform consistency from the PM to the field worker
- Assurance that the company engineering and administrative procedures are adhered to and are consistent with other project/DOE requirements
- Review of procurement bid packages
- Audit suppliers' facilities and processes

During the operations phase of the project, quality assurance assumes a pro-active role during project execution. This serves to bridge traditional QA and TQM. Its major effort is to anticipate potential problems, offer solutions, and take the steps necessary to prevent potential problems. This approach expands the traditional role of QA/QC beyond simply verifying if specifications/procedures are being implemented. QA/QC is responsible for objectively verifying that management/DOE directions and policies are being effectively implemented by the responsible organizations. This is a natural evolution of the broad base QA/QC has traditionally had. It also underscores the importance of communications. The QA/QC role during operations includes:

- Performing audits and surveillance of the project
- Verifying personnel training records
- Review data-gathering methodologies
- Determine compliance with procedures
- Perform incoming inspections of materials
- Inspect waste packaging operations
- Perform walkdowns
- Review data (medical, HP measurements)
- Monitor project for potential improvement
- Monitor corrective action initiatives

During execution of any project, the goal of management is to provide service as problem-free as possible. The best measure of the quality program's effectiveness is a satisfied client. If everything goes well, it is hard to measure the effectiveness of the quality program based on averting potential problems. Non-occurrence cannot be measured, which makes it difficult to assess the monetary value of the QA program.

The pay back of a quality program is reflected in a smoothly run project and is evidenced by efficient execution measured as high productivity. The time spent up front in assuring consistency throughout the paperwork system, operational methods, and personnel training result in minimal changes throughout the life of the project. A proactive approach to quality, which involves the entire project team, results in high morale and minimizes the number of surprises, the reactions to which can result in chaos on the project. One measure of the success of the quality program on a project can be seen in the turnover rate, which is tied to job satisfaction and high morale. Another measure of success is the low number of corrective actions and non-conformance even though a large number of quality surveillances have occurred.

3.4.2 Worker Health and Safety Plan

Due to the scope of work and the potential dangers associate with this decommissioning action, this project will comply with the Occupational Safety and Health Administration construction standard for Hazardous Waste Operations and Emergency Response, 29 Code of Federal Regulations (CFR) 1926. Under this standard, a Site-Specific Health and Safety Plan will be

developed to address the safety and health hazards of each phase of site operations and specify the requirements and procedures for employee protection. In addition, the DOE Order for Construction Project Safety and Health Management, 5480.9A, applies to these projects. This order requires the preparation of Activity Hazard Analyses to identify each task, the hazards associated with each task, and the cautions necessary to mitigate the hazards. These requirements will be integrated wherever appropriate.

This project could expose workers to physical, chemical, and low levels of radiological hazards. The physical hazards associated with decommissioning activities include: the use of heavy equipment, electrical shock, noise, heat stress, and work on elevated surfaces. Physical hazards will be mitigated by appropriate use of PPE, pre-engineering evaluation, briefing, training, and administrative controls. Chemical hazards will be mitigated by the use of PPE, removal of sources, and administrative controls. Appropriate skin and respiratory personal protective equipment will be worn throughout the project as directed by Industrial Hygiene (IH) personnel. Based on employee exposure evaluations, the Site Health and Safety Officer may downgrade personal protective equipment requirements, if appropriate. If field conditions vary from the planned approach, an Activity Hazard Analysis will be prepared for the existing circumstances and work will proceed according to the appropriate control measures. Data and controls will be continually evaluated. Radiological Work Permits will be generated for areas of contamination and will identify the areas of potential surface contamination, appropriate PPE, and airborne radioactivity controls, if necessary. As required by 10 CFR 835, Radiation Protection of Occupational Workers, all applicable implementing procedures will be followed to insure protection of the workers. Finally, dust minimization techniques will be used to minimize re-suspension or fugitive dust emissions.

3.4.3 Characterization Plan

The purpose of characterization is to:

- quantify the physical and chemical characteristics of radiological and hazardous material contamination and the extent of contamination
- quantify parameters that affect potential human exposure from existing and residual radiological or chemical contamination
- support evaluation of detailed decommissioning planning including decontamination, land disposal restrictions, treatments, and waste disposal.

The Reconnaissance Characterization Report identifies and documents the conditions found during the implementation of the characterization plan. Results from the sampling will include

estimated volume and type of waste to be generated which will be dispositioned by the Waste Management Plan.

It is not anticipated that any environmental samples will be required during decommissioning. However, if any environmental sampling is planned as part of the removal action, a sampling and analysis plan (SAP) shall be prepared. The SAP would be approved by the EPA before the action could commence. Public comment is not required for the SAP.

An SAP is made up of two parts: the field sampling plan and the quality assurance program plan. The field sampling plan identifies sample, quantity, location, method for handling, collection, and storage of samples and the method of analysis. The quality assurance program plan documents the quality actions associated with the project.

3.4.4 Waste Management

The decommissioning group, with the assistance of Waste Management, will prepare input into a waste management plan which will identify the approximate volumes and manner of recycling/disposal of all waste generated by decommissioning actions. These actions are discussed in more detail in Section 9 of the DPP.

4.0 ENVIRONMENTAL IMPACT

The National Environmental Policy Act requires that actions conducted at the RFETS consider potential impacts to the environment. An Environmental Checklist and NEPA values shall be created for this action.

5.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

RFETS decommissioning actions performed under a PAM must attain, to the maximum extent practicable, Federal and State applicable or relevant and appropriate requirements (ARARs). For this reason, the substantive attributes of the Federal and State ARARs are identified in the DPP for all decommissioning actions conducted at RFETS. ARARs associated with this PAMs actions is a subset of those requirements and are identified below for identification.

Substantive requirements are those requirements that pertain directly to actions or conditions in the environment. Examples of substantive requirements include:

- quantitative health- or risk-based restrictions upon exposure to types of hazardous substances or "chemical specific" (e.g., MCLs establishing drinking water standards for particular contaminants)

- technology-based requirements for actions taken upon hazardous substances or "action specific" (e.g., incinerator standards requiring particular destruction and removal efficiency)
- restrictions upon activities in certain special locations or "location specific" (e.g., standards prohibiting certain types of facilities in flood plains) ARARs.

5.1 Chemical Specification Requirements and Considerations

Chemical specific requirements include quantitative health or risk-based restrictions. This project will encounter conditions that will be regulated by the following chemical specific restrictions identified in Section 5.1.1. These restriction will be incorporated in this project planning efforts and compliance will be assured by following site procedures or direct inclusion in the IWCP with stop points.

5.1.1 Action Specific Requirements and Considerations

The 40 CFR 61.92 is applicable and requires that no member of the public receive more than 10 mrem per year above background from airborne sources of radiation. Demonstration of compliance with 40 CFR 61.92 is performed on a site-wide basis taking into consideration all RFETS sources. Stack monitoring is required for all release points which could contribute greater than 0.1 mrem/year. Based upon preliminary estimates, monitoring will not be required. A formal analysis will be prepared to reflect this.

5.1.2 Radiological Specifications

Radiological standard 10 CFR 835 is applicable and controls exposure to site workers. This regulation is implemented through the Rocky Flats Radiological Control (RadCon) Manual and RadCon procedures.

5.2 Action Specific Requirements and Considerations

The technology based standards and requirements are utilized when ever applicable or relevant and appropriate, to that specific action, is completed to eliminate as many problem areas as possible. This project will encounter conditions that will regulated by the following chemical specific restrictions identified in section 5.2.1. These restriction will be incorporated in this project planning efforts and will be assured by following Site procedures.

5.2.1 RCRA

Requirements governing the identification and characterization of hazardous wastes are applicable to the requirements in Colorado Hazardous Waste Act (CHWA)(See 6 CCR 1007-3, 261). The implementation of generator standards (6 CCR 1007-3 262) will be completed utilizing the WSRIC program and Waste Management Procedures. Based upon process knowledge and characterization data, the waste that will be generated will be that covered by the Universal Rule (e.g., fluorescent bulbs, batteries and chemicals).

5.2.2 Low Level Waste

The State of Colorado Low Level Waste program (6 CCR 1007-14) is incorporated in Waste Management Operation procedures (1100-1104).

5.2.3 OSHA

This project will comply with the Occupational Safety and Health Administration construction standard for Hazardous Waste Operations and Emergency Response, 29 CFR 1926. This is integrated in the Health and Safety Plan and the IWCP.

5.3 Location Specific Requirements and Considerations

There are no location specific requirements associated with this scope of work. No soil will be excavated, nor any effluent discharges to surface water or air. The demolition of the buildings will leave the concrete base intact for remediation later, if necessary.

5.4 To Be Considered (TBC)

TBCs are used in determining the necessary level of cleanup for the protection of human health and the environment. The March 8, 1990 preamble to the final NCP rule (see 55 FR 8746) indicates that the use of TBCs is discretionary rather than mandatory. However, their incorporation is recommended and identified in this PAM.

5.4.1 TBC Guidance

Radiological standards identified in DOE Order 5400.5 and 5820.2A are contractual guidance for the protection of the public and the environment and for the control of radiological waste and decommissioning project activities, respectively. These guidances are implemented through the Rocky Flats Radiological Control procedures and the DPP.

6.0 IMPLEMENTATION SCHEDULE

Buildings 965, 968, and 980 are scheduled for decommissioning by the end of this fiscal year (September 30, 1997)

7.0 REFERENCES

DOE, 1992, *Historical Release Report for the Rocky Flats Plant*, Rocky Flats Plant, Golden, CO.

DOE, 1996, *Final Rocky Flats Cleanup Agreement*, Rocky Flats Environmental Technology Site, Golden, CO.

K-H, 1996, *Rocky Flats Environmental Technology Site Radiological Control Manual*, June.

DOE, *Waste Stream and Residue Identification and Characterization for building 965, 968, and 980*.

NRC, 1992, *NUREG/CR-5849, Manual For Conducting Radiological Surveys In Support of License Termination*

DRAFT

**Buildings 965, 968, & 980 D&D Area
FIGURE 2-1**

